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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/800,697  
Filing Date: March 07, 2001  
Appellant(s): MCINTOSH ET AL.

**MAILED**

JUL 17 2007

**GROUP 3600**

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Roland A. Fuller III  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 8<sup>th</sup>, 2007 appealing from the Office action mailed October 14<sup>th</sup>, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6959235	ABDEL-MALEK et al.	10-2005
6892317	SAMPATH et al.	5-2005

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-20 are rejected under 35 U.S.C. 103 (a). This rejection is set forth in prior Office Action. The rejection is set forth below as it appears in the previous Office Action mailed on October 14<sup>th</sup>, 2006.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdel-Malek et al (6,959,235) in view of Sampath et al (6,892,317).

(A) As per claim 1, Abdel-Malek discloses a computer-implemented warranty knowledge base construction system, comprising; a user interface for receiving a first rule related repair claim processing (See Abdel-Malek, Col.20, lines 55-67); wherein the

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first rule is used in a knowledge base system to process repair claims (See Abdel-Malek, Fig.2; Col.10, lines 41-67).

Abdel-Malek does not explicitly disclose a rules syntax data store that stores syntax rules for constructing repair claim-related rules; a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules.

However, these features are known in the art, as evidenced by Sampath. In particular, Sampath teaches a rules syntax data store that stores syntax rules for constructing repair claim-related rules (See Sampath, Col.10, lines 7-46); a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules (See Sampath, Fig.1; Col.3, lines 62-67 to Col.4, line 50; Col.12, lines 53-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Sampath within the system of Abdel-Malek with the motivation of providing a portable unit which incorporates graphical user interfaces for ease of use and comprehension. With the availability of all information at track side, the repair process can sometimes be moved from the repair shop to run-through or service track sites, thus providing significant productivity gains and cost savings to the railroad (See Sampath, Col.3, lines 5-14).

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(B) As per claim 2, Abdel-Malek discloses the system wherein a knowledge base stores a plurality of repair claim related expert rules to evaluate a repair claim (See Abdel-Malek, Col.2, lines 62-67 to Col.3, line 14), said system further comprising: an integrity rules module connected to the knowledge base generator module in order to determine whether the first rule is consistent with respect to at least one of the warranty-related expert rules that is stored in the knowledge base (See Abdel-Malek, Col.4, lines 24-61; Col.7, lines 20-47).

(C) As per claim 3, Abdel-Malek discloses the system wherein the first rule is incorporated into the knowledge base, said system further comprising: a testing module for testing the knowledge base with testing scenarios (See Abdel-Malek, Col.5, lines 43-65).

(D) As per claim 4, Abdel-Malek discloses the system wherein the first rule is incorporated into the knowledge base, said system further comprising: a testing module for performing regression testing of the knowledge base (See Abdel-Malek, Col.5, lines 43-65).

(E) As per claim 5, Abdel-Malek discloses the system further comprising: a reverse engineer module for generating a specification for the knowledge base (See Abdel-Malek, Col.4, lines 24-42).

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(F) As per claim 6, Abdel-Malek discloses the system wherein the specification for the knowledge base includes warranty methods and warranty business rules (See Abdel-Malek, Col.4, lines 24-42).

(G) As per claim 7, Sampath discloses the system wherein the first rule contains a high level computer expression, said knowledge base generator evaluating the high level expression as to whether the high level expression of the rule is in an acceptable syntax based upon the stored syntax rules (See Sampath, Col.12, lines 53-67 to Col.13, line 33).

The motivation for combining the respective teachings of Abdel-Malek and Sampath are as discussed above in the rejection of claim 1, and incorporated herein.

(H) As per claim 8, Sampath discloses the system wherein the knowledge base generator generates a lower level representation of the first rule if the first rule is in an acceptable syntax (See Sampath, Col.13, lines 20-32).

The motivation for combining the respective teachings of Abdel-Malek and Sampath are as discussed above in the rejection of claim 1, and incorporated herein.

(I) As per claim 9, Sampath discloses the system wherein the high level computer expression of the first rule is an English phrase (See Sampath, Col.13, lines 1-18), wherein the lower level representation of the first rule is at least one line of programming code (See Sampath, Col.13, lines 20-32).

The motivation for combining the respective teachings of Abdel-Malek and Sampath are as discussed above in the rejection of claim 1, and incorporated herein.

(J) As per claim 10, Sampath discloses the system wherein the programming code is C++ programming code (See Sampath, Col.13, lines 20-32).

The motivation for combining the respective teachings of Abdel-Malek and Sampath are as discussed above in the rejection of claim 1, and incorporated herein.

(K) As per claim 11, Abdel-Malek discloses a computer-implemented warranty knowledge base construction system, comprising the steps of: receiving a first rule related to vehicle repair claim processing (See Abdel-Malek, Col.2, lines 62-67 to Col.3, line 14).

Abdel-Malek does not explicitly disclose storing syntax rules for constructing repair claim-related rules; determining whether the first rule is in an acceptable syntax based upon the stored syntax rules; wherein the first rules in a knowledge base method to process repair claims.

However, these features are known in the art, as evidenced by Sampath. In particular, Sampath teaches storing syntax rules for constructing repair claim-related rules (See Sampath, Col.10, lines 7-46); determining whether the first rule is in an acceptable syntax based upon the stored syntax rules (See Sampath, Fig.1; Col.3, lines 62-67 to Col.4, line 50; Col.12, lines 53-67); wherein the first rules in a knowledge base method to process repair claims (See Sampath, Col.8, lines 34-60).



It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Sampath within the system of Abdel-Malek with the motivation of providing a portable unit which incorporates graphical user interfaces for ease of use and comprehension. With the availability of all information at track side, the repair process can sometimes be moved from the repair shop to run-through or service track sites, thus providing significant productivity gains and cost savings to the railroad (See Sampath, Col.3, lines 5-14).

(L) Claims 12-20 recite the underlying process steps of the elements of claims 2-10, respectively. As the various elements of claims 2-10 have been shown to be either disclosed by or obvious in view of the collective teachings of Abdel-Malek and Sampath, it is readily apparent that the method disclosed by the applied prior art performs the recited underlying functions. As such, the limitations recited in claims 12-20 are rejected for the same reasons given above for system claims 2-10, and incorporated herein.

**(10) Response to Argument**

In the Appeal Brief filed on 3/8/07, Appellant makes the following arguments:

(i) Abdel-Malek does not disclose a rules syntax data store that stores syntax rules for constructing repair claim-related rules; a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules.

(ii) Neither Abdel-Malek nor Sampath disclose a warranty knowledge base construction system or method.

(iii) Abdel-Malek fails to disclose a user interface for receiving a first rule related to vehicle repair claim processing as required by claim 1 or receiving with a computer networked system a first rule related to vehicle repair claim processing as required by claim 11.

(iv) Abdel-Malek does not deal with rules related vehicle repair claims processing because it does not process vehicle repair claims, it just allows warranty claims to be submitted, such as to a warranty claims processor.

(v) Neither Abdel-Malek nor Sampath address constructing rules, and in particular, do not address checking a newly received rule against existing warranty rules for consistency.

(vi) Abdel-Malek and Sampath do not address testing the knowledge base with testing scenarios to determine whether there are any inconsistencies between a new and existing rules.

(vii) Abdel-Malek and Sampath fail to disclose the limitations of claims 1 and 11.

(B) Examiner will address Appellant's arguments in sequence as they appear in the Brief.

In response to Appellant first argument, it is respectfully submitted that Appellant fails to ignore the definition of Syntax in programming language which controls rules as to structure and content of statements. Various languages have been known in the

programming languages such as "Cobol, C++, Pascal, Unix, Java ETC. In this case, Appellant fails to properly consider the clear and unmistakable teachings of the applied references, and further fails to properly consider the breadth of the claim limitations presently argued. With this in mind, it is the clear and unmistakable teaching of the secondary reference of Sampath that the Examiner has relied upon See Col.6, lines 17-65 particularly lines 35-46; Col.13, lines 19-32. Further, it appears that Appellant's seeks to assign a specific meaning to the term "syntax rule" which is not explicitly defined via a positive and concrete definition within the present specification, nor further refined in the bodies of the pending claims. As such, the Examiner respectfully submitted that such terms were given their broadest reasonable interpretations during examination, and since the applied reference clearly discloses the claimed limitations, when given their broadest reasonable interpretations, it is respectfully submitted that the Examiner's reliance on Sampath for such a feature is indeed proper. Therefore, Appellant's claimed feature is not persuasive and the rejection is hereby sustained.

(C) In response to Appellant second argument, it is respectfully submitted that Appellant fails to ignore the clear and unmistakable teaching for such a feature See Abdel- Malek Col.3, lines 1-14. Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

(D) In response to Appellant third argument, it is respectfully submitted that Appellant fails to ignore the clear and unmistakable teaching for such a feature. In addition,

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Examiner respectfully submitted that He relied upon the teaching of Abdel-Malek whom suggests "a repair methodology". The expert recommendations are supplemented by repair information, such as schematics, maintenance manuals, and other technical documentation stored at the MSDC and made available at the portable unit (See Abdel-Malek, Col.2, lines 53-67). Futher, Abdel-Malek suggests that "warranty information can be accessed and warranty claims submitted through the portable unit of the present invention. The portable unit incorporates graphical user interfaces for ease of use and comprehension. With the availability of all this information at track side, the repair process can sometimes be moved from the repair shop to run-through or service track sites, thus providing significant productivity gains and cost savings to the railroad. The portable unit can also interface with and communicate with the locomotive on-board monitoring systems for downloading or uploading fault and parametric operational data collected during operation" which correspond to Appellant's claimed feature See Abdel-Malek, Col.3, lines 1- 14). Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

(E) In response to Appellant fourth argument; Examiner respectfully submitted that He has been equated a rule based system, expert systems and other reasoning mechanisms to be a form of "rule of syntax" See Abdel-Malek in Col.6, lines 35-57) which correspond to Appellant's claimed feature. Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

(F) Appellant's fifth and sixth arguments are similar to the features in paragraph B above, are therefore rejected for the same reasons, and incorporated herein.

(G) In response to Appellant argument against the references of Abdel-Malek and Sampath, Examiner respectfully submitted that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a prima facie case of obviousness, since he has presented evidence of corresponding claim elements in the prior art by expressly pointing to specific portions of each applied reference and has expressly articulated the combinations and the motivations for combinations as well as the scientific and logical reasoning of one skilled in the art at the time of the invention that fairly suggest Appellant's claimed invention.

Each applied reference does not expressly suggest combination with the other respective references; however, the Examiner has shown that motivation for combining the references existed in the prior art. Within the present combinations, all of the modifications proposed by the Examiner are taught by the references and that knowledge generally available to one of ordinary skill in the art. Therefore, the combination of references is proper and the rejection maintained.

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In addition, the Examiner recognizes that references cannot be arbitrarily altered or modified and that there must be some reason why one skilled in the art would be motivated to make the proposed modifications. However, although the Examiner agrees that the motivation or suggestion to make modifications must be articulated, it is respectfully contended that there is no requirement that the motivation to make modifications must be expressly articulated within the references themselves.

References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures, *In re Bozek*, 163 USPQ 545 (CCPA 1969).

The Examiner is concerned that Appellant apparently ignores the mandate of the numerous court decisions supporting the position given above. The issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

- (i) obviousness does not require absolute predictability;
- (ii) non-preferred embodiments of prior art must also be considered; and
- (iii) the question is not express teaching of references, but what they would suggest.

According to *In re Jacoby*, 135 USPQ 317 (CCPA 1962), the skilled artisan is presumed to know something more about the art than only what is disclosed in the

applied references. In *In re Bode*, 193 USPQ 12 (CCPA 1977), every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein.

According to *Ex parte Berins*, 168 USPQ 374 (Bd. Appeals), there is no statutory limitation as to the number of references that may be used to demonstrate obviousness not what references expressly state but what they would reasonably suggest to one of ordinary skill in the art. In *In re Conrad*, 169 USPQ 170 (CCPA), obviousness is not based on express suggestion, but what references taken collectively would suggest.

Nonetheless, it is respectfully submitted that an explanation based on logic and sound scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner in the previous Office Action, *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter., 4/22/93).

In addition, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The skilled artisan would not consider the prior art embodiments in a vacuum, but would have had the motivation to combine the advantageous features of the prior art in the manner purported by the Examiner for the reasons and motivations given in the prior Office Action. Thus, the teachings of Abdel-

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Malek and Sampath when considered with the knowledge that is generally available to one of ordinary skill in the art make obvious the limitations that Appellant disputes.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

  
Vanel Frenel

Patent Examiner

Art Unit 3627

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